

CLAIMS

1. A collimator comprising:

a pair of first plate members each having X-ray absorbability, movable in a direction parallel to a surface thereof, and defining an X-ray passing aperture by a spacing between respective end faces opposed to each other; and

a pair of second plate members each having X-ray absorbability, the second plate members, in order to block other X-rays than the X-ray passing through the aperture, being connected at respective one ends by hinges to end portions of the pair of first plate members opposite to the mutually opposed end faces of the first plate members and being supported at respective opposite ends so as to be movable obliquely with respect to the moving direction of the first plate members with movement of the first plate members.

2. A collimator according to claim 1, wherein the opposite ends of the second plate members are supported by guide grooves formed obliquely with respect to the moving direction of the first plate members and pins engaged in the guide grooves.

3. A collimator according to claim 1, wherein the pair of first plate members are movable independently of each other.

25 4. An X-ray irradiator comprising:

an X-ray tube;

a collimator for collimating X-ray generated from the X-ray tube;

the collimator comprising:

30 a pair of first plate members each having X-ray

absorbability, movable in a direction parallel to a surface thereof, and defining an X-ray passing aperture by a spacing between respective end faces opposed to each other; and

5 a pair of second plate members each having X-ray absorbability, the second plate members, in order to block other X-rays than the X-ray passing through the aperture, being connected at respective one ends by hinges to end portions of the pair of first plate members opposite to the mutually opposed end faces of the first plate members and 10 being supported at respective opposite ends so as to be movable obliquely with respect to the moving direction of the first plate members with movement of the first plate members.

5. An X-ray irradiator according to claim 4, wherein the opposite ends of the second plate members are supported by 15 guide grooves formed obliquely with respect to the moving direction of the first plate members and pins engaged in the guide grooves.

6. An X-ray irradiator according to claim 4, wherein the pair of first plate members are movable independently of each 20 other.

7. An X-ray apparatus comprising:

an X-ray tube;

a collimator for collimating X-ray generated from the X-ray tube and applying the collimated X-ray to an object to 25 be radiographed; and

a detector device for detecting the X-ray which has passed through the object to be radiographed,

the collimator comprising:

30 a pair of first plate members each having X-ray absorbability, movable in a direction parallel to a surface

thereof, and defining an X-ray passing aperture b a spacing between respective end faces opposed to each other; and

5 a pair of second plate members each having X-ray absorbability, the second plate members, in order to block other X-rays than the X-ray passing through the aperture, being connected at respective one ends by hinges to end portions of the pair of first plate members opposite to the mutually opposed end faces of the first plate members and being supported by respective opposite ends so as to be 10 movable obliquely with respect to the moving direction of the first plate members with movement of the first plate members.

8. An X-ray apparatus according to claim 7, wherein the opposite ends of the second plate members are supported by guide grooves formed obliquely with respect to the moving 15 direction of the first plate members and pins engaged in the guide grooves.

9. An X-ray apparatus according to claim 7, wherein the pair of first plate members are movable independently of each other.